early treatment response evaluation in 82 (67.21%) of the patients, for staging in 65 (53.28%) patients, late treatment responseevaluation in 48 (39.34%) patients, for restaging in 40 (32.79%) patients. PET/CT was not used for diagnosis and radiation treatment response evaluation. Major histologic subtype was found to be infiltrating ductal carcinoma (IDC) (91%). liver was the most common metastatic site among all (41 patients) 85.37% in 35 patients, lung in 30 patients (73.17%), bone in 25 patients (60.98%), around 3 patients were having lesions in brain, adrenal and ovaries, around (4.88%) 2 patients were presented with lesion in atrium. Recurrence was present in 31(76%) patients, chest wall invasion in 10 patients (24%). Maximum number of patients around 21 patients had lesions in ipsilateral axillary nodes (51.22%), 16 in supraclavicular nodes (39.02%) and 13 patients (31.71%) in contralateral nodes. Treatment plan was altered in 55 patients (45.08%), whereas supported in 67 patients (54.92%). **CONCLUSIONS:** The clinical utility of PET/CT may lead to a change in the routine diagnostic algorithm and follow-up protocols for patients with cancer by providing correct and early diagnosis of recurrence as well as by establishing its precise significance for further clinical management.

PRM17

AN EVALUATION OF MEDICATION ERRORS IN A LARGE TEACHING HOSPITAL

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OBJECTIVES: A lot of studies regarding medication errors are reported and published worldwide. We also face a big challenge of medication errors in our country. This study aims to explore the types of medication errors in drug administration in a large teaching hospital which is a reflection of the medication errors in the whole country. **METHODS:** Trainee Pharmacists from 3 different batches of Pharmacy in my supervision were assigned to examine the errors in different clinical units of the hospital. The study was based on their personal monitoring and patients' interviews regarding the medication administration. The results were collected from 1900 patients and the study period was from June, 2008 to November, 2010. **RESULTS:** We had detected 910 medication errors out of 1900 patients only in drug administration. In each category the medication errors were omission: 387(42.5%), time: 291(32%), unauthorized drug: 89(9.8%), wrong rate: 70(7.7%), wrong route: 56(6%) and wrong dosage form: 17(2%). The health care professionals involved in these medication errors were nurses and the reason was lack of hospital Pharmacists in each nursing unit. **CONCLUSIONS:** Different areas in our country and other developing countries might have these problems/results. There is a dire need for the induction of hospital Pharmacists in the health care system to overcome these types of medication errors which leads to about 40% accidents and incidents in drug administration. Nurses involved in these medication errors should be trained for proper use and administration of the drugs to the in-patients in particular. This study also indicates that this type of practice is the reflection of state and regulatory affairs in the country and this is a warning for all developing countries.

PRM19

DEVELOPMENT OF AN ALGORITHM THAT DIFFERENTIATES AMONG RISK FACTORS, COMORBIDITIES, AND CONSEQUENCES OF DISEASE IN PEER-REVIEWED PUBLICATIONS

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OBJECTIVES: A common limitation of the peer-reviewed literature is failure to establish whether a condition precedes or follows disease diagnosis. If disease diagnosis comes first, the condition is either a comorbidity or consequence of the disease, whereas if the condition precedes disease diagnosis, it may be a risk factor. Our objective was to develop an algorithm for appropriate classification of risk factors, comorbidities, and consequences of disease to enable accurate assessment of the literature. **METHODS:** We established the following procedure to identify risk factors in articles retrieved through our literature search: 1) exclude cross-sectional studies as potential sources of risk factor data because they cannot establish the necessary temporal sequence; 2) if the terms 'risk factor' or 'incidence' are present in the remaining articles, include only those that: a) report on a population followed over time; b) contain baseline data indicating absence of signs/symptoms of the disease of interest at study onset; and c) have conducted statistical analyses demonstrating associations between individual baseline factors and the disease. If these requisites are not met, signs/symptoms present at study onset should be classified as comorbid conditions. Conditions arising as a result of the condition may be classified as disease consequences. **RESULTS:** We systematically applied our algorithm to 100 peer-reviewed articles in clinically focused journals retained for inclusion after screening. The algorithm allowed for accurate classification of risk factors (ie, underlying conditions that predispose a patient to development of the disease), comorbidities (ie, conditions that complicate disease progress), and consequences of the disease (ie, events shown to be statistically related to the disease and occurring after disease onset). **CONCLUSIONS:** We have developed an algorithm that accurately differentiates among risk factors, comorbidities, and consequences of a disease. This tool will aid in the accurate assessment of clinical literature when conducting systematic reviews.

PRM20

CONDUCTING PATIENT-CENTERED STUDIES: CHALLENGES AND OPPORTUNITIES

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OBJECTIVES: In the biopharmaceutical industry, site-based studies are the norm for evaluating drug safety and efficacy. Recently patient-centered studies (PCSs) have gained popularity. These studies offer advantages over site-based studies, but present unique challenges. This abstract seeks to describe the patient-centered approach and associated challenges and opportunities. **METHODS:** This descriptive study reviews operational and design issues of PCSs and discusses utility, advantages, and challenges. **RESULTS:** PCSs revolve around patients. They use an open-enrollment model whereby all eligible patients can self-enroll directly, thereby maximizing enrollment. Enrollment is not limited to patients treated at particular study sites. These studies typically employ a single site and "virtual" study coordinating center to screen/enroll patients and collect data, thus reducing site costs. PCSs are used extensively for pregnancy registries and other rare-exposure/disease registries, and more recently for clinical trials. This unique approach requires buy-in from regulatory agencies and IRBs. Recruitment activities should cast a wide net using various means targeted to the population (e.g., internet and social media recruitment sources for younger patients; television, radio, or print media for older patients). Streamlined patient screening, informed consent (e.g., on-line consent or waivers of written consent), and data collection processes are essential. Retention is facilitated by engaging participants in the reporting process, minimizing reporter burden, and providing ongoing support using various means targeted to the population (e.g., internet or mobile apps for younger patients and human support through coordinating centers for older patients). It may also be critical to obtain medical release to verify patient-reported medical data from treating physicians. However, discrepancies between patient-reported and physician-reported data may pose challenges in analyses and reporting. **CONCLUSIONS**: PCSs offer advantages such as maximizing enrollment and reducing site costs, but pose regulatory, operational, and analytic challenges. Researchers opting to employ PCSs must weigh challenges versus opportunities in the design phase.

PRM21

STUDYING DRUG SAFETY IN PREGNANCY: DIFFERENT APPROACHES, SAME CONCLUSIONS?

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OBJECTIVES: Various methods are used to monitor safety of drug exposures in pregnancy, including prospective pregnancy registries, longitudinal database studies, and case-control studies. This abstract seeks to evaluate these approaches and examine impact on interpretation of results. **METHODS:** Study designs for the three types of pregnancy monitoring studies were examined to determine strengths and limitations in effectively monitoring drug safety in pregnancy and the types of conclusions that can meaningfully be drawn from each. **RESULTS:** Pregnancy registries are prospective studies with active data collection from reliable sources providing detailed, quality data on exposure and outcome. Their voluntary nature can lead to selection bias and a lengthy enrollment period may be needed to reach sufficient sample size/power. Longitudinal database studies are population based and offer timely and cost-efficient results, but often require complex linkage of multiple databases. Misclassification bias can occur because critical variables (exposure and outcome) may lack precision/detail. Case-control studies begin with the outcome of interest and retrospectively assess drug exposure offering substantial statistical power to identify teratogens among relatively rare exposures, but are subject to recall bias. Only registries are useful in monitoring safety early in the drug lifecycle. Pregnancy registries can detect major teratogenic effects, but have limited power to detect risk of specific birth defects. Database studies can detect major teratogenic effects and due to their large size/power may also detect risk of specific defects. Both approaches can assess other outcomes. Case-control studies provide insights into the strength of association between exposure and a specific defect, but cannot be used to estimate birth defect prevalence or other outcomes. **CONCLUSIONS:** All three approaches are viable for studying drug safety in pregnancy, but differ in the types of conclusions that may be drawn. In choosing a design, it is important to consider study objectives and outcomes of interest.

PRM22

IMPACT OF HURRICANE KATRINA ON EPILEPSY PATIENTS IN THE LOUISIANA MEDICAID POPULATION

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OBJECTIVES: Naturally occurring catastrophic events not only disrupt economic activity but also impact access to essential health services. The purpose of this study is to quantify the long-term impact of Hurricane Katrina on continuously-eligible epilepsy patients' health care utilization pre-and post-Hurricane Katrina (August 29, 2004-August 28, 2007). **METHODS:** This study was a population-based retrospective analysis of the Louisiana Medicaid database. Frequency counts of demographic variables age, gender, race and region were computed. Segmented regression analysis was applied to the longitudinal data to analyze changes in emergency room (ER) utilization, the number of patients receiving anti-epileptic medication, the total number of prescriptions utilized and the average cost of pharmacy claims. In effect, the dependent variables were regressed against 1) total time (months); 2) Katrina as a discrete event; and 3) time post-Katrina (months). **RESULTS:** A total of 1371 epileptic patients in the Louisiana Medicaid population was found of which 2/3rds were 18-64 years of age, 49% African-American and 53.1% were males. Patients were primarily from Baton Rouge (44%), New Orleans (36%) and Acadiana (21%). Results of segmented regression analysis revealed that ER utilization was significantly related to all three time variables. Katrina as a discrete event was statistically significant in relation to the number of epileptic patients receiving prescriptions and the number of prescriptions utilized, whereas the average cost per prescription claim was